In the Claims:

1.(original) A cementitious pipe suitable for below ground use, wherein said pipe has a tubular wall of fiber-reinforced cementitious matrix or material capable of exhibiting pseudo strain hardening (PSH) behavior, said wall has a wall thickness to diameter ratio within a range, and the cementitious material and the range for said wall thickness to diameter ratio are such that the pipe exhibits characteristic behavior in diametral quasi-static bending (flexure) when subjected to the 3-edge bearing method, and wherein said behavior is such that a resultant stress versus relative displacement curve for the pipe when subjected to that method exhibits a substantially linear elastic region having a first slope S_1 of from about 1000 MPa to 1700 MPa and, from a limit of proportionality (LOP) of from about 4 MPa to about 12 MPa for the elastic region to a modulus of rupture (MOR) for the pipe of from about 10 MPa to about 20 MPa, a PSH region which, beyond a possible transition region, has a slope S_3 which is less than that of the elastic region and is from a small positive value less than $0.04S_1$ up to about $0.25S_1$; whereby the pipe while subjected to loads generating stress up to the LOP is able to function as a rigid pipe and, at loadings generating stress levels in excess of the LOP and up to the MOR, the pipe is able to function as a flexible pipe due to the effects of the PSH.

2.(original) The pipe of claim 1, wherein the wall has a relatively low wall thickness to diameter ratio.

3.(currently amended) The pipe of claim 1 ~~or claim 2~~, wherein for a given wall diameter, the wall thickness is within a relatively narrow range, with the wall thickness range for a pipe having a wall of a given larger diameter being greater than the wall thickness range for a pipe having a wall of a given smaller diameter.

4.(original) The pipe of claim 3, wherein the wall thickness range for a given wall internal diameter is as follows for the indicated pipe wall internal diameters:

Wall Diameter	Wall Thickness Range
225mm	5 to 9mm
375mm	8 to 15mm
750mm	16 to 30mm
2100mm	45 to 85mm

5.(original) The pipe of claim 3, wherein the wall thickness range for a given wall internal diameter is as follows for the indicated pipe wall internal diameters:

Wall Diameter	Wall Thickness Range
225mm	6 to 8mm
375mm	9 to 13mm
750mm	20 to 26mm
2100mm	55 to 75mm

6.(currently amended) The pipe of claim 1 ~~any one of claims 1 to 5~~, wherein the stress versus relative displacement curve, when tested by the 3 edge bearing method of Australian Standard AS4139-2003, has a value for the LOP of rom about 5 to 10 MPa, for example from 5 to 7 MPa.

7.(currently amended) The pipe of claim 1 ~~any one of claims 1 to 6~~, wherein the stress versus relative displacement curve, when tested by the 3 edge bearing method of Australian Standard AS41392003, has a value at cracking strength of the matrix in initial testing of form about 4 to 12 MPa, such as from 5 to 10 MPa, for example 5 to 7 MPa.

8. (currently amended) The pipe of claim 6 ~~or claim 7~~, wherein said curve, when so tested, has a relative displacement (δ_1) at the limit of elastic deformation of from about 0.3% to about 0.9%, such as from 0.4 to 0.8%, for example 0.6 to 0.8%.

9. (currently amended) The pipe of claim 6 ~~any one of claims 6 to 8~~, wherein said curve when so tested, has a first, transition part of the PSH region of the curve which ranged up to a relative displacement (δ_2) of about 1.7%, such as from 1.1 to 1.5%, for example about 1.2%.

10. (currently amended) The pipe of claim 6 ~~any one of claims 6 to 9~~, wherein said curve, when so tested, has at least a major part of the PSH region which ranges up to a displacement (δ_3) of about 11%, preferably within the range of from about 2% to about 11%, such as from about 3% to 10%, for example, from about 5% to about 9%.

11. (currently amended) The pipe of claim 6 ~~any one of claims 6 to 10~~, wherein said curve, when so tested, has a MOR of from about 10 to 17 MPa, such as from about 10 to 15 MPa, for example from about 11 to 15 MPa.

12. (currently amended) The pipe of claim 6 ~~any one of claims 6 to 11~~, wherein said curve has a slope (S_1) over the linear portion of the curve, within said first limits, of from about 1000 MPa to about 1650 MPa, for example about 1330 MPa to 1650 MPa.

13. (currently amended) The pipe of claim 6 ~~any one of claims 6 to 12~~, wherein at least a major part of the length of the PSH region of said curve has a positive slope (S_3) which ranges, within said second limits, from about 0.04 S_1 to 0.25 S_1, such as from about 0.05 S_1 to 0.25 S_1, and wherein said PSH region fluctuates in

amplitude and said slope S_3 is the slope of a smoothed trend line for the PSH region.

14. (currently amended) The pipe of claim 1 ~~any one of claims 1 to 13~~, wherein said tubular wall is of substantially circular cross-section and of substantially constant cross-sectional form substantially throughout its length.

15. (currently amended) The pipe of claim 1 ~~any one of claims 1 to 14~~, wherein the cementitious matrix is based on Portland cement and includes pozzolanic material such as flyash, silica fume, slag and combinations thereof.

16. (currently amended) The pipe of claim 1 ~~any one of claims 1 to 14~~, wherein the cementitious matrix comprises an alkali-active cement based on a pozzolanic material such as flyash, silica fume and combinations thereof.

17. (currently amended) The pipe of claim 15 or claim 16, wherein the cementitious matrix has discontinuous fibers dispersed therethrough, such as metallic, polymeric, ceramic fibers, and combinations thereof, in relatively short fiber length of from 3mm to 24mm in length.

18. (currently amended) The pipe of claim 1 ~~any one of claims 1 to 17~~, wherein the cementitious material is an engineered cementitious composite.

19. (currently amended) The pipe of claim 1 ~~any one of claims 1 to 18~~, wherein the pipe is produced by dewatering extrusion of a suitable cementitious material having a water content providing a ratio of water to binder (cement plus pozzolanic) of about 0.3 to 0.5, and wherein the ratio is reducing during extrusion to about 0.24 to 0.26.

20. (currently amended) The pipe of claim 1 ~~any one of claims 1 to 19~~, wherein the tubular wall of the pipe is of a material which has a value for Young's modulus of from 20 GPa to 40 GPa, such as from 30 GPa to 35 GPa.

21.(currently amended) The pipe of claim 1 ~~any one of claims 1 to 20~~, wherein the tubular wall of the pipe is of a material which has a compressive strength of from 40 to 100 MPa, such as from 45 to 75 MPa, for example 50 to 70 MPa.

22.(currently amended) The pipe of claim 1 ~~any one of claims 1 to 21~~, wherein the pipe has a composite failure stress of from 5 to 14 MPa, such as from 6 to 12 MPa, for example 6 to 9 MPa.

23.(original) A method of producing cementitious pipe suitable for below ground use, wherein said method includes subjecting a fibre-containing cementitious mix to dewatering extrusion thereby forming a tubular green body, and curing said green body to provide a cured pipe having a tubular wall of fibre-reinforced cementitous matrix or material capable of exhibiting pseudo strain hardening (PSH) behavior, and wherein the cementitous mix is extruded such that said wall has a wall thickness to diameter ratio within a range, and wherein said forming and the cementitious mix are controlled whereby the range for said wall thickness to diameter ratio is such that the cured pipe exhibits characteristic behavior in diametral quasi-static bending (flexure) when subjected to the 3-edge bearing method, and such said behavior is such that a resultant stress versus relative displacement curve for the pipe when subjected to that method exhibits a substantially linear elastic region having a first slope S_1 of from about 1000 MPa to about 1700 MPa and, from a limit of proportionality (LOP) of from about 4MPa to about 12 MPa for the elastic region to the modulus of rupture (MOR) for the pipe of from about 10 MPa to about 20 MPa, a PSH region which, beyond a possible transition region, has a slope S_3 which is less than that of the elastic region and is from a small positive value less than 0.04 S_1 up to about 0.25 S_1;

whereby the pipe while subjected to loadings generating stress up to the LOP is able to function as a rigid pipe and, at loads generating stress levels in excess of the LOP and up to the MOR, the pipe is able to function as a flexible pipe due to the effects of PSH.

24. (original) The method of claim 27, wherein the forming is controlled such that the wall has a relatively low wall thickness to diameter ratio.

25.(currently amended) The method of claim 23 ~~or claim 24~~, wherein forming is controlled such that the for a given wall diameter, the wall thickness is within a relatively narrow range, with the wall thickness range for a pipe having a wall of a given larger diameter being greater than the wall thickness range for a pipe having a wall of a given smaller diameter.

26.(original) The method of claim 25, wherein forming is controlled such that the wall thickness range for a given wall internal diameter is as follows for the indicated pipe wall internal diameters:

Wall Diameter	Wall Thickness Range
225mm	5 to 9mm
375mm	8 to 15mm
750mm	16 to 30mm
2100mm	45 to 85mm

27. (currently amended) The method of claim 25, wherein forming is controlled such that the wall thickness range for a given wall internal diameter is as follows for the indicated pipe wall internal diameters:

Wall Diameter	Wall Thickness Range
225mm	6 to 8mm
375mm	9 to 13mm
750mm	20 to 26mm
2100mm	55 to 75mm

28. (currently amended) The method of claim 23 ~~any one of claims 23 to 27~~, wherein said forming is controlled such that the tubular wall is of substantially circular cross-section and of substantially constant cross-sectional form substantially throughout its length.

29. (currently amended) The method of claim 23 ~~any one of claims 23 to 38~~, wherein the cementitious matrix is selected from a matrix based on:
(a) Portland cement and includes pozzolanic material such as flyash, silica fume, slag and combinations thereof; or
(b) an alkali-active cement based on a pozzolanic material such as flyash, silica fume and combinations thereof.

30. (original) The method of claim 29, wherein the cementitious matrix has discontinuous fibers dispersed therethrough, such as metallic, polymeric, ceramic fibers, and combinations thereof, in relatively short fiber length of from 3mm to 24mm in length.

31. (currently amended) The method of claim 23 ~~any one of claims 23 to 30~~, wherein the cementitious material is an engineered cementitious composite.

32. (currently amended) The method of claim 23 ~~any one of claims 23 to 31~~, wherein the pipe is produced by dewatering extrusion of a suitable cementitious material having a water content providing a ratio of water to binder (cement plus

pozzolanic) of about 0.3 to 0.5, and wherein the ratio is reduced during extrusion to about 0.24 to 0.26.